

Study of the Effects of Dust Radiative and Microphysical Properties on Precipitation and Energy Budget Using A-Train Satellite Measurements and A Cloud Resolving Model

D. Allen Chu, Sergio DeSouza-Machado, JCET/UMBC
Chung-Lin Shie, Xiaowen. Li, Ruei-Fong Lin, GEST/UMBC

- MODIS/AIRS: dust layer height
- OMI: horizontal coverage
- MODIS: dust loading and effective radius
- Cloud Resolving Model to simulate microphysical processes

DC-8 and surface sensors to provide:

- In-situ profiles of dust properties (size, scattering/absorption, aging), lidar extinction profile, and cloud droplet size
- T, q profiles (dropsonde or radiosonde)

Canary Islands

Cape Verde

September 4, 2005